PREFACE

This is an independent report of the Expert Panel ("Panel") organized by the Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM) and the National Toxicology Program (NTP) Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM). The report summarizes discussions, conclusions, and recommendations of the public meeting of the Panel that was held at the National Institutes of Health in Bethesda, MD on January 11 and 12, 2005. The ICCVAM and the Ocular Toxicity Working Group (OTWG) will consider the report, along with public comments, to prepare test method recommendations for U.S. Federal agencies. ICCVAM test method recommendations will be forwarded to U.S. Federal agencies for consideration and action, in accordance with the ICCVAM Authorization Act of 2000 (P.L. 106-545).

NICEATM, in coordination with the OTWG and ICCVAM, prepared comprehensive draft background review documents (BRDs) reviewing the available data and information for four *in vitro* test methods: the Isolated Rabbit Eye (IRE), the Isolated Chicken Eye (ICE), the Bovine Corneal Opacity and Permeability (BCOP), and the Hen's Egg Test - Chorioallantoic Membrane (HET-CAM) assay. Each BRD was based on studies using the test method, and data and information submitted in response to a 2004 *Federal Register* (*FR*) request for submission of *in vitro* data for each of these test methods and for submission of high-quality *in vivo* rabbit eye test data (*FR* notice Vol. 69, No. 57, p. 13859-13861; March 24, 2004). All four draft BRDs were made publicly available on the ICCCVAM/NICEATM website (http://iccvam.niehs.gov) or from NICEATM on request.

NICEATM, in collaboration with the OTWG and ICCVAM, organized an independent Expert Panel review of the methods in January 2005. Comments from the public and scientific community were solicited and provided to the Panel for their consideration (*FR* notice Vol. 69, No. 212, p. 64081-2; November 3, 2004).

The Panel was charged with:

- Evaluating, for each of the four *in vitro* test methods, the extent and adequacy that each of the applicable ICCVAM validation and acceptance criteria[1]
  - have been addressed, based on available information and data, or
  - will be addressed in proposed studies for the purpose of identifying ocular corrosives and severe irritants in a tiered testing strategy.
- Developing, for each of the four *in vitro* test methods, conclusions and recommendations on:
  - current usefulness and limitations of each of the four test methods for identifying ocular corrosives and severe/irreversible irritants
  - the test method protocol that should be used for future testing and validation studies
  - the adequacy of proposed optimization and/or validation studies
  - the adequacy of reference substances proposed for future validation studies

[1] ICCVAM submission guidelines can be obtained at: http://iccvam.niehs.nih.gov/docs/guidelines/subguide.htm

During the public meeting in January 2005, the Panel discussed the current validation status of each of the four *in vitro* test methods. The Panel also provided formal comment on each of the BRDs and made recommendations for revisions to each document. In addition, the public were provided time at the public meeting to comment on the BRDs. The Panel then provided final endorsement regarding the validation status of each of the test methods.